

REMARKS

In the Office Action, the Examiner affirmed the Election Requirement, indicating that claims 1-18 had been elected, and that the non-elected claims 19-36 had been withdrawn. By the present Response, claims 19-36 are canceled. Moreover, by the present Response, claims 1, 8, 11, 12, 13 and 18 are amended, and claims 6 and 17 are canceled without prejudice. Upon entry of the amendments, claims 1-5, 7-16 and 18 will be pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

Claims 1-4 and 16-18 were rejected under 35 U.S.C. §102(b) as anticipated by Paurus et al. (U.S. Patent No. 5,448,511; hereinafter "Paurus"). Applicants note that this rejection encompasses all of the currently pending independent claims 1, 8 and 13. All of these claims, and their dependent claims, are believed to be clearly patentable over Paurus.

All of the independent claims have been amended in a similar fashion, to more particularly point out and distinctly claim that the assemblies include both inter-component thermal management devices, and second or further thermal management devices that are thermally coupled or connected to the inter-component thermal management devices. Such an arrangement is illustrated in the application, for example, in FIG. 7. The additional thermal management device coupled to the inter-component thermal management device assists in extracting heat from the circuitry and from the inter-component thermal management device.

The Paurus reference sets forth a memory stack that includes thermal planes 308 interposed between dice to provide heat dissipation. The Examiner seemed to indicate, such as in the rejection of dependent claim 6, now canceled, that the same elements 308 were considered to be additional thermal management devices satisfying the recitation of claim 6, a feature now included in all of the independent claims.

However, the reference does not support the Examiner's position. That is, the various thermal planes 308 of Paurus are strictly separate devices. That is, no thermal plane 308 is thermally connected or coupled to any other thermal planes 308. Moreover, no other thermal management devices are coupled to any of the thermal planes 308 in the Paurus system.

Accordingly, because the Paurus reference does not teach or even remotely suggest coupling additional thermal management devices to the thermal planes 308, the reference cannot support a *prima facie* case of anticipation of the pending independent claims. All of the claims depending from claims 1, 8 and 13 are believed to be similarly patentable over Paurus both for the subject matter they separately recite, as well as by virtue of their dependency from an allowable base claim.

The Examiner also rejected claims 1, 2, 3, 6-9 and 11-15 under 35 U.S.C. §102(e) as anticipated by Wang et al. (U.S. Patent No. 6,590,282; hereinafter "Wang"). Here again, Applicants note that this rejection would encompass all of the pending independent claims. All of these claims are believed to be patentable over Wang.

The Wang reference, in a manner similar to the Paurus reference, describes a packaged electronic circuit that includes circuitry associated with heat sinks 86. The heat sinks are disposed between integrated circuit dice 52. However, as noted with regard to the Paurus reference, Wang never describes coupling these heat sinks in any way with any other thermal management device. That is, heat sinks 86 throughout the various Wang embodiments are strictly individual and independent. No suggestion is made of any other thermal management structure that could be or should be coupled to these heat sinks.

Because Wang does not disclose or suggest additional thermal management devices that are thermally coupled or connected to inter-component thermal management

devices, the reference cannot support a *prima facie* case of anticipation of the independent claims. Applicants further note that the dependent claims are believed to be equally patentable both for the subject matter they separately recite, as well as by virtue of their dependency from an allowable base claim.

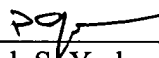
Applicants have noted the rejections under 35 U.S.C. §103(a) of certain of the dependent claims, notably claims 4 and 5. These claims, too, are believed to be equally patentable for the reasons set forth above. In particular, Applicants note that the secondary references cited by the Examiner do not obviate the deficiencies of Paurus and Wang discussed above.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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